**Template | Unit Enhancement**

***ENGINEERING DESIGN***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Background Information**

**Instructional Materials Title:**

**Publication Date:**

**Work Group Participants:**

**Date Developed:**

**High Leverage Lesson (Title and Page Number):**

**Rationale**

· **Why we identified this particular lesson**

* **Provides students with basic understanding of criteria and constraints; provides relevant scientific principals and potential impacts relating to *Force and Motion*.**
* **Students will test different designs to validate the criteria, and redesign the device to accomplish better success.**
* **Students will analyze data to verify differences and similarities among several design solutions to reach the best success possible.**

**- Connections to NGSS and WA Science Standards**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Engineering* Lesson Enhancement**

**Overview**

· **Identification of where within the High Leverage Lesson to insert enhancement**

· **Key instructional strategies and tools needed**

**Part 1: Lesson Modifications to Lead Up to *Engineering Task***

* Time budget of 10 days.
* Not SEPUP, but McKnight Middle School *Egg Car Project*

**Part 2: *Engineering* Learning Sequence**

* SEPUP unit will be taught, and then Egg Car Project will serve as a Summative Assessment.
* [Fabien@uw.edu](mailto:Fabien@uw.edu) (eco car presentations by UW students after egg car project.)

**Part 3-A: Engineering Task**

*Criteria: Students will design a car from basic materials that will protect an egg passenger during a crash test, and be tested for speed.*

**Part 3-B: Assessment Rubric**

**Assessment complete. Rubric in process…**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Additional Information**

NOTES

· Information that will be useful when teaching this lesson

- Resources that will be useful

- Scaffolds that students will use